APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/775,986	02/02/2001	Arthur Blank	Blank et al.-PA-1	7259

7590   09/29/2003

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EXAMINER
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ART UNIT	PAPER NUMBER
2172	4

DATE MAILED: 09/29/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 07-01)

	Application No.		Applicant(s)	
Office Action Summary	09/775,986		BLANK ET AL.	
	Examiner		Art Unit	
	Chongshan Chen		2172	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>14 July 2003</u> .

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-4,7-12 and 15-19</u> is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-4,7-12 and 15-19</u> is/are rejected.

7)☒ Claim(s) <u>1,7,8 and 15</u> is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

   If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☐ All b)☐ Some * c)☐ None of:

   1.☐ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____ .

   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
   application from the International Bureau (PCT Rule 17.2(a)).
   * See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

   a)☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)   4)☐ Interview Summary (PTO-413) Paper No(s). _____ .
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)   5)☐ Notice of Informal Patent Application (PTO-152)
3)☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .   6)☐ Other: .

DETAILED ACTION

1.   This action is responsive to communications: Amendment A, filed on 14 July 2003. This

action is made final. Claims 1-4, 7-12 and 15-19 are pending; claims 5-6, 13-14 and 20 are

cancelled.

Claim Objections

2.   Claims 1, 7-8 and 15 are objected to because of the following informalities:

The amend claim 1 in clean form does not match its corresponding claim in the redlined

version, ("assigning no score to each non-match" vs. "assigning a zero or negative score to each

non-match").

Claims 7-8 and 15 are depending on cancelled claims.

Appropriate correction is required.

Response to Arguments

3.   Applicant's arguments filed on 14 July 2003 have been fully considered but they are not

persuasive.

As per applicant's arguments regarding "Sutcliffe weighs each match, but does not weight

each non-match and each no-preference item" have been considered but are not persuasive.

Sutcliffe's system provides user selectable preferences, such as no preference, never, etc.

(Sutcliffe, Fig. 2A-2B, Fig. 3A, col. 5, line 28 – col. 6, line 6). Furthermore, Sutcliffe teaches

the user can choose a weight to be assigned to each criteria data element (Sutcliffe, col. 9, lines

25 – col. 10, lines 19). Therefore, Sutcliffe's system assigns weight to non-match and no-

preference items.

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5.   Claims 1-4, 7-12 and 15-19 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Sutcliffe et al. ("Sutcliffe", 6,052,122) in view of Shorter (5,946,681).

As per claim 1, Sutcliffe teaches a method for matching one set of wants with a database

of profiles based on cross-matching of corresponding want data to profile data, comprising the

steps of:

compiling a database of registration records each identifying and describing actual

characteristics of an entity (Sutcliffe, Fig. 1, 22, User Information Database, Fig. 3A, 200, Obtain

and store characteristic and criteria data for users of the system in a user database);

compiling a query record comprising desired characteristics of an entity and incremental

preference rankings associated with said desired characteristics by prompting a user to enter

subjective data identifying and describing their wants by a series of online forms displaying a

range of discrete choices for each data element, plus a range of user-selectable preference levels

for each data element (Sutcliffe, Fig. 2A-2B, Fig. 3A, 204, Define a search string to match

characteristic and criteria data of the first user and other users of the system, col. 5, line 28 – col.

6, line 6);

matching said actual characteristics with said desired characteristics and assigning a

positive integer numerical score for each match that increases in accordance with an increasing

preference ranking, assigning a nominal positive numerical score for each match designated no-

preference (Sutcliffe, col. 9, line 25 – col. 10, line 19, "the user can choose a weight to be

assigned to each criteria data element. Thus, for each criteria data element that matches a

corresponding characteristic data element of another user a number of points corresponding to

the weight would be added to a running total", col. 5, lines 57-59, "criteria data provide choices

such as *no preference, never, ...*"); and

totaling said, scores to prioritize the closest registration records based on said query

record (Sutcliffe, col. 9, lines 59-65, "Each would have a point total associated therewith. Some

number of the highest point totals, ten or fifty for example, can be saved. The user information

corresponding to the other users having the highest point total is provided to the first user so that

the first user can contact the respective other users").

Sutcliffe does not explicitly disclose assigning *a zero or negative score* to each non-

match. Shorter teaches assigning a zero or negative score to each non-match (Shorter, col. 6,

lines 41-67). Therefore, it would have been obvious to one of ordinary skill in the art at the time

the invention was made to combine Shorter with Sutcliffe in order to assign a negative score to

non-match to diminish the affect of another attribute value in the same object attribute record

matching a corresponding attribute value specified in the input criteria.

As per claim 2, Sutcliffe and Shorter teach all the claimed subject matters as discussed in

claim 1, and further disclose assigning a score for each non-match that is weighted in accordance

with said preference ranking (Shorter, col. 6, lines 41-67).

As per claim 3, Sutcliffe and Shorter teach all the claimed subject matters as discussed in claim 1, and further disclose said database of registration records identify and describe actual characteristics of people, and said step of compiling a database of registration records further comprises prompting successive users to each enter a profile of objective data identifying and describing themselves by a series of online forms presented to said users by a computer (Sutcliffe, Fig. 1, col. 5, lines 28-64).

As per claim 4, Sutcliffe and Shorter teach all the claimed subject matters as discussed in claim 3, and further disclose prompting a user to enter subjective data identifying and describing their wants by a series of online forms presented to said user by a computer, plus prompting said user to enter a subjective preference ranking associated with each want data element to indicate importance thereof (Sutcliffe, Fig. 4, col. 5, lines 28-64, col. 9, lines 55-65).

As per claim 7, Sutcliffe and Shorter teach all the claimed subject matters as discussed in claim 5, and further disclose said user-selectable preference levels are assigned numerical values (Sutcliffe, col. 9, lines 55-65).

As per claim 8, Sutcliffe and Shorter teach all the claimed subject matters as discussed in claim 6, and further disclose said user-selectable preference levels are assigned numerical values (Sutcliffe, col. 9, line lines 25-35).

As per claim 9, Sutcliffe and Shorter teach all the claimed subject matters as discussed in claim 8, and further disclose assigning weight to criteria data elements to find the closest match (Sutcliffe, col. 5, line 28 – col. 6, line 6, col. 9, line 25 - col. 10, line 19). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to assign numerical values are as follows: "must"=1, "strongly want"=2, "want"=3, "don't care or no

preference"=4, "don't want "=5, "strongly don't want "=6 and "must not be"=7 in order to find

the best match the user desired.

As per claim 10, Sutcliffe and Shorter teach all the claimed subject matters as discussed

in claim 8, and further disclose said step of matching said actual characteristics with said desired

characteristics by assigning a score for each match that is weighted in accordance with said

preference ranking further comprises assigning a maximum score for each positive comparison

of query data with profile record when said preference ranking is equivalent to "must" or "must

not be" (Sutcliffe, Fig. 2A & 2B, col. 5, line 28 – col. 6, line 6, col. 9, line 25 - col. 10, line 19).

As per claim 11, Sutcliffe and Shorter teach all the claimed subject matters as discussed

in claim 10, and further disclose said step of matching said actual characteristics with said

desired characteristics by assigning a score for each match that is weighted in accordance with

said preference ranking further comprises assigning a minimum score for each positive

comparison of query data with profile record when said preference ranking is equivalent to "don't

care or no preference" (Sutcliffe, Fig. 2A & 2B, col. 5, lines 65-67, col. 9, line 25 - col. 10, line

18).

As per claim 12, Sutcliffe teaches an automated system for matching a set of desired

subjective characteristics to a most suitable profile of actual objective characteristics from among

a database of such objective profiles, comprising:

a database of profile records each comprising a collection of data elements describing

actual objective characteristics of an entity (Sutcliffe, Fig. 1, 22, User Information Database, Fig.

3A, 200, Obtain and store characteristic and criteria data for users of the system in a user

database);

a succession of computer forms navigable by a graphical user interface for prompting a user to enter a query record describing desired characteristics of an entity, said query record including a plurality of incremental preference rankings associated with said desired characteristics (Sutcliffe, Fig. 1, 3A & 3B, col. 2, lines 30-67, col. 9, line 25 - col. 10, line 19);

a computer software matching engine for scoring the conformity of the query record of desired characteristics with said profile records of actual characteristics based on correspondence of said data records as statistically weighted by said preference rankings, said matching engine assigning a positive integer numerical score for each match that increases in accordance with an increasing preference ranking, assigning a nominal positive numerical score for each match designated no-preference, said matching engine then totaling said scores (Sutcliffe, col. 9, line 25 – col. 10, line 19, col. 5, line 28 – col. 6, line 6); and

an output display for displaying a list of profile records that conform to said query record in prioritized order of the matching engine score (Sutcliffe, Fig. 1 & 4, col. 3, lines 1-3).

Sutcliffe does not explicitly disclose assigning *a zero or negative score* to each non-match. Shorter teaches assigning a zero or negative score to each non-match (Shorter, col. 6, lines 41-67). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Shorter with Sutcliffe in order to assign a negative score to non-match to diminish the affect of another attribute value in the same object attribute record matching a corresponding attribute value specified in the input criteria.

As per claim 15, Sutcliffe and Shorter teach all the claimed subject matters as discussed in claim 13, and further disclose said profile records each identify and describe actual characteristics of people (Sutcliffe, Fig. 3A, col. 2, lines 30-54).

As per claim 16, Sutcliffe and Shorter teach all the claimed subject matters as discussed in claim 15, and further disclose said query records include subjective data identifying and describing a user's wants plus a subjective preference ranking associated with each want to indicate importance thereof (Sutcliffe, Fig. 3A & 3B, col. 9, line 55 - col. 10, line 19).

As per claim 17, Sutcliffe and Shorter teach all the claimed subject matters as discussed in claim 16, and further disclose said succession of computer forms prompts a user to enter subjective data identifying and describing their wants by displaying a range of discrete choices for each data element, plus a range of user-selectable preference levels for each data element (Sutcliffe, Fig. 2A & 2B, col. 5, line 28 – col. 6, line 6).

Claim 18 is rejected on grounds corresponding to the reasons given above for claim 6.

As per claim 19, Sutcliffe and Shorter teach all the claimed subject matters as discussed in claim 17, and further disclose user-selectable preference levels further comprise at least seven discrete preference levels (Sutcliffe, col. 9, lines 25-30).

Conclusion

6.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Wheeler et al. (6,618,727) teach system and method for performing similarity searching.

7.   Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this

final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Chongshan Chen whose telephone number is (703) 305-8319.

The examiner can normally be reached on Monday - Friday (8:00 am - 4:30 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Kim Y Vu can be reached on (703)305-4393. The fax phone number for the

organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the receptionist whose telephone number is (703)305-3900.

Chongshan Chen

SHAHID ALAM
PRIMARY EXAMINER